DOCUMENT RESUME

ED 313 978 HE 023 083

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TITLE Education Faculty Job Satisfaction in Major Research Universities. ASHE Annual Meeting Paper.
PUB DATE Nov 89
NOTE 31p.; Paper presented at the Annual Meeting of the Association for the Study of Higher Education (Atlanta, GA, November 2-5, 1989).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Rank (Professional); College Administration; *College Faculty; Compensation (Remuneration); Decision Making; Higher Education; *Job Satisfaction; Peer Evaluation; Peer Relationship; Salaries; Sex Differences; Teacher Attitudes; Tenure; *Work Attitudes
IDENTIFIERS *ASHE Annual Meeting

ABSTRACT

The study attempted to: (1) identify predictors of global job satisfaction in university faculty members; (2) determine the relative importance of each predictor and its overall ability to predict global job satisfaction; (3) determine if the value appraisal model, developed for this study, is more accurate than more conventional predictive models; and (4) determine the effects of gender, tenure status, and rank on global job satisfaction. Surveys from 265 faculty members at eight midwestern institutions with schools of education were analyzed. Analysis indicated that a significant proportion of global affective response to faculty work was predicted by the autonomous and creative nature of academic work itself, perceptions of participation in administrative decision making, perceptions of the fairness of administrative evaluation, perceived esteem by peers in the university community, and financial compensation. There were no main effect or interaction differences in job satisfaction by tenure, gender, or rank. The model used compared favorably to the other models (need fulfillment, sum-of-facets satsifaction, and absolute discrepancies between needs and desires). Seven recommendations include: reduce the number of committees; make peer evaluation equitable; and ensure that salaries and fringe benefits keep pace with inflation. Tables are included. Contains 41 references. (SM)

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Education Faculty Job Satisfaction in Major Research Universities

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Paper presented at the Annual Meeting
of the
Association for the Study of Higher Education
November 2-5, 1989
Atlanta, Georgia

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This paper was presented at the annual meeting of the Association for the Study of Higher Education held at the Ritz-Carlton, Buckhead in Atlanta, Georgia, November 2-5, 1989. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

14th Annual Conference • November 2-5, 1989

Ritz-Carlton, Buckhead • Atlanta, Georgia

Education Faculty Job Satisfaction in Major Research Universities

University faculty traditionally have had a great deal of work autonomy to teach, do research, and provide services as they choose. Teaching, research, and service can be described as "professional employment" which is characterized by: (1) autonomous organization of the work space; (2) working by a code of ethics and responsibilities to those served; and (3) the right to peer review (Baldridge et al., 1978). A number of studies have found that autonomy and the intellectual nature of academic work itself accounted for much of the high positive affective response of academic professionals to their work (Cares & Blackburn, 1978; Moxley, 1977; Pearson & Seiler, 1983).

It is probable that the fit between professionalism, autonomy, and faculty tasks have contributed to faculties' positive perceptions of work. Although these reported levels of satisfaction have been relatively high, Willie and Stecklein (1982), in a three-decade longitudinal design, recently found that overall job satisfaction has decreased, from 92.6% in 1956 to 84.7% in 1980. This drop may be related to the many changes in higher education which have affected the professional, autonomous nature of faculty work.

Background and Problem

Multiple forces that influence the operations of higher educational institutions have been identified in the literature. These forces have been classed as external or internal, although their effects are not mutually independent. Models of educational environments depict the two sets of forces as complex, interactive systems which produce complex, conditional outcomes (Getzels-Guba model; Getsels, Lipham & Campbell, 1968).

Financial stringency, an external force, has been created by the decrease in traditional-age college population and general economic inflation. These conditions have directly and indirectly driven up educational costs as the recession has reduced discretionary funding for post-secondary institutions (Williams & Johansen, 1985). Both absolute and relative salary compensation for faculty has declined in the last two decades, and real research funding has not matched inflation rates (Krueger, 1979). Pressure from public and private funding agencies has created a demand for accountability (Hatch, 1981). External financial constraints on faculty remuneration and accountability demands that increase "red tape" and decrease autonomy may result in continuing declines in faculty job satisfaction ratings.

The internal forces of academic specialization and administrative centralization may also negatively change the

nature of faculty work. As academic disciplines become more fragmented, collegiality and peer review are threatened (Clark, 1983). Faculty contacts with administrators have become increasingly more adversarial as spheres of influence are altered by burgeoning bureaucracies. Centralization reduces the participation of faculty in decision-making processes. Anderson (1985) reported that higher faculty job satisfaction was directly related to shared decision-making between faculty and professional staff, but decentralization is difficult to establish in large, rigid, adversarial educational structures.

External and internal forces may further detrimentally affect faculty work autonomy during this period of transition. The identification of the specific factors most related to faculty job satisfaction and of the complex relationship between those factors would be useful for administrators in creating interventions to slow or to reverse the trend toward declining job satisfaction. Effective methods to offset the negative influences of change would be difficult to derive without a thorough understanding of job satisfaction variables and their interrelationships. However, most empirical research on faculty job satisfaction has used bivariate correlational or descriptive designs. Such approaches have only partially accounted for some of the variability in university faculty job satisfaction. This research study should provide a more comprehensive explanation of faculty job satisfaction than currently exists.

Purpose and Objectives

The overall purpose of this study is to identify the factors associated with faculty job satisfaction, to place these factors in a theory-based predictive model weighted by value estimates, and to ascertain how these variables are related to a global measure of faculty job satisfaction. Specifically, the research objectives are: (1) to identify a set of predictors of global job satisfaction; (2) to determine the relative importance of each and their overall ability to predict global job satisfaction; (3) to determine if the value appraisal model, developed for this study, is more accurate than three more conventional predictive models (need fulfillment, sum-of-facets satisfaction, and absolute discrepancies between needs and desires); and (4) to determine the effects of gender, tenure status, and rank on global job satisfaction.

The Theoretical Model

Job satisfaction is defined as "the degree to which the members of a social system have a positive affective orientation toward membership in the system" (Price, 1972, p. 156). It results from jobs that fulfill or facilitate fulfillment of important job values, providing that one's values and needs are congruent (Locke, 1976). This definition implies a cognitive evaluation or appraisal of objects in arriving at the affective

orientation, satisfaction.

Because faculty work reflects professional values and standards to an extraordinary degree (Finkelstein, 1984), the Locke (1984) theoretical framework of job satisfaction was adapted for this research project. Locke's temporal sequence of an evaluation process developed by Rand (1964) is:

Object---> Cognition---> Value Appraisal---> Emotion

Objects are things, actions, attributes, facets, or even pre-existing emotions. Cognition is the information processing that occurs when objects are perceived. Value appraisal is an automatic, subconscious weighting of the perceptions of objects by value standards. If an object's associated value is low/unimportant, attaining or not attaining the facet will produce less emotion that when an object value is high/important.

In the work setting, having important job elements or facets is associated with high satisfaction; having unimportant facets is unrelated to job satisfaction; and having devalued facets is associated with low job satisfaction. Emotions are the results of the value appraisal processes. Though the emotion may or may not motivate one to act, emotions do contain action tendencies which may be indicative of job satisfaction (Skaggs & Lissitz, 1981) and can be measured by self-reports. Applied to work, the Locke conceptual framework is:

Facet---> Perception/Cognition---> Value Appraisal ---> Job Satisfaction

This sequence was not used as a path analytical model but rather

as a schema representing the affective process of faculty work satisfaction. This study focused on only the appraisal component of the schema, and a value appraisal formula was developed to calculate "value appraisals" (VAs), for each of the predictors. The VA predictor was operationally computed from survey ratings as:

$$VA = (\text{Value} \times \text{Current level}) - [\text{Value} - (\,|\text{Desired level} - \text{Current level}|\,)]$$

Thus, when a person highly values a job element and perceives that she/he has a high current level of this element, and there is little difference between what the person desires and the current level, the VA will indicate a high degree of satisfaction.

The Predictor Variables

Variables were identified from a review of blue and white collar job satisfaction research and from the findings of 27 studies of higher education faculty job satisfaction. Conceptually overlapping items were combined to create a list of possible survey items. Organizational literature routinely categorized job satisfaction variables in one of two ways, as agents/events (Locke, 1976), or as intrinsic/extrinsic facets (Cook, Hepworth, Wall & Warr, 1981). None of the higher educational studies presented a classification structure. To avoid the often cited clarity problem involved in classification

(Cook et al., 1981), the variables were grouped as work-related, institution-related, or social-psychological. The following list presents the grouped variables and the associated items with citation of empirical support.

WORK-RELATED (5)

Autonomy "determining one's own work activities", Diener, 1984;
Work itself "opportunity for working with creative ideas", "amount of time for teaching", "amount of time for research" Bess, 1981
Work overload "work load of present teaching, research and other activities", Finkelstein, 1984
Role conflict "conflict created when work load interferes with other valued activities", Araghi, 1981;
Legitimacy "legitimacy of work perceived by the university community", "legitimacy of work perceived by the public" Bennett & Griffitt, 1976

INSTITUTION-RELATED VARIABLES (8):

Pay "level of present pay", Corcoran & Clark, 1984
Fringe benefits "fringe benefits", Bennett & Griffitt, 1976
Role clarity "clarity of definition of activities", Araghi, 1981
Evaluation standards "fairness of criteria that are used in evaluating work", "fairness of the process used in evaluating work", Gonnett, 1983
Equity of policy - included as the "fairness" component of the evaluation standards item, Dittrich & Carrell, 1979;
Participation in decision-making "opportunities to participate in academic decision-making", "opportunities to participate in administrative decision-making", Finkelstein, 1984
General resources "resources for such things as equipment, sabbaticals, computer access, research funds", Corcoran & Clark, 1983
Work conditions "appropriate working conditions--office space, surroundings, furniture, etc.", Baldridge et al., 1978

SOCIAL-PSYCHOLOGICAL VARIABLES (3):

Peer relations "chance for interactions with colleagues in the department", Sorcinelli & Near, 1986
Supervisor relations "chance for interaction with my department chairperson", Bennett & Griffitt, 1976
Student relations "opportunities for developing mentorships or personal relationships with students", Corcoran & Clark, 1984

Selection of the Three Comparison Models

There are a number of job satisfaction models (Bess, 1981), but several were eliminated from consideration because of their assumption of a simplicity incongruent with university faculty work, or because they lacked empirical validity as explanatory schemas. Three models that could be adapted conceptually to explain variability in educational faculty job satisfaction emerged from the literature: (1) need fulfillment (Blackburn & Navighurst, 1979; Hyer, 1985); (2) sum-of-facets satisfaction (Bess, 1981); and (3) absolute discrepancy [based on work by Bess (1973) and Salancik and Pfeffer (1977)].

Ratings of the current levels of each of the survey items were operationalized as the need fulfillment model. Ratings of satisfaction with each survey item were used to quantify the facets for the sum-of-facets satisfaction model. The discrepancy model components (D) were defined as the absolute arithmetic differences between the current and the desired levels of each corresponding survey item: $D=(|\text{Current level-Desired level}|)$.

Covariates

Gender, tenure status, and rank are the covariates most frequently identified in faculty job satisfaction literature (Finkelstein, 1984; Sorcinelli & Near, 1986; Willie & Stecklein, 1982). In general, female, lower ranked, and untenured faculty

have been less satisfied than are male, higher ranked, and tenured faculty. Only one covariate, gender, received a sufficiently large number of responses to permit partitioning for multiple regression analyses.

It is hypothesized that a set of value appraisal predictors will account for more variance in university faculty global job satisfaction than will sets of more conventional predictors. Those variables most related to faculty work activities are predicted to account for a greater proportion of global job satisfaction variance than other classes of variables. The global job satisfaction ratings will be significantly greater for male, tenured, and higher faculty ranks than those for female, untenured, and lower faculty ranks.

Methodology

Sites

Ten institutions with schools of education were selected on the basis of (a) location in a single regional area, and (b) classification as a "research multiversity" (Kerr, 1963) or a "doctoral-granting institution" (Carnegie Council, 1976). Nine of the 10 are public multiversities, one is private and non-denominational. Two public universities declined to participate, leaving eight sites that best represent public, research multiversities in the midwest.

Sample

A random sample of 480 faculty members from the 961 full-time education faculty received surveys; 265 completed surveys were returned, for an overall return rate of 60%, excluding non-useable replies. The participant sample was predominantly male (76%), at upper faculty ranks (83.7% full and associate professors), tenured (88.3%), caucasian (90.6%), and stable in their employment (mean years at institution, 15.9). The respondents were generally representative of the total sample, although proportionally somewhat more female respondents compared to female non-respondents returned surveys.

Instrument

Development. Data from semi-structured interviews with nine faculty not in the research sample confirmed the sampling domain of the variable list. A pilot test group of 29 faculty not in the research sample completed draft surveys with the 16 items. Participants suggested rephrasing several items and separating two items, judged to be too inclusive for accurate rating, into four items.

The instrument consisted of 20 job items rated on four scales--current level, satisfaction level, desired level, and value level--corresponding to the following questions:

1. How much of [element] do you currently have?
2. How satisfied are you with [element] ?
3. How much of [element] do you want?
4. How much do you value, how important to you is, [element]?

The rating scale ranged from "1" (absent/minimum) to "5" (very high) levels. Four survey items solicited demographic information on tenure status, gender, number of years employed at institution, and ethnicity, and eight items rated global perceptions of job satisfaction. The last two survey items were open-ended questions, requesting one to three major influences, respectively, that make their jobs (a) satisfying and (b) dissatisfying.

Content representativeness and validity. Confirmatory interviews and pilot testing supported content representativeness of the survey items (Hambleton, 1980). Factor analyses were performed on survey responses (a) to reduce the likelihood of correlated predictors; (b) to reduce the number of predictors; and (c) to create a more ideal cases-to-predictor variables ratio (Tabachnick & Fidell, 1983). Factor analyses of each of the four survey rating scales (current level, satisfaction, desired level, value level) obtained four similarly configured, multi-item factors for each scale. Each set of items was averaged to create the factor rating. See Table 1.

Table 1: Composition of the Four Factors

Factor	Survey items
I. WORK	autonomy, work creativity, time for research, time for teaching
II. EVADM	fairness of evaluation criteria, fairness of evaluation process, participation in academic decision-making, participation in administrative decision-making
III. FINAN	pay, fringe benefits
IV. TEACH	time for teaching, opportunity for mentoring

Reliability. Cronbach's coefficient alphas (Cronbach, 1951) were computed on the four factors for each of the models.

Table 2: Reliabilities of Factors by Model

Factor	Rating scale/Model	alpha	Mean alpha
EVADM	Value appraisal	.86	.85
	Current level/Need	.85	
	Sum-of-facets Satis.	.87	
	Discrepancy	.80	
WORK	Value appraisal	.66	.65
	Current level/Need	.68	
	Sum-of-facets Satis.	.68	
	Discrepancy	.56	
FINAN	Value appraisal	.60	.62
	Current level/Need	.64	
	Sum-of-facets Satis.	.62	
	Discrepancy	.59	
TEACH	Value appraisal	.40	.41
	Current level/Need	.43	
	Sum-of-facets Satis.	.59	
	Discrepancy	.21	

The most reliable factor was evaluation/administration (EVADM); the least reliable was teaching (TEACH). Factors exceeded the minimum coefficient alpha (.40) recommended for exploratory research (Nunnally, 1978), but conclusions about TEACH may be affected by its comparatively low alpha.

The instrument used 20 items that were re-defined as 12 predictor variables: eight single item ratings (role clarity, work load, working conditions, university value of work, public value of work, interrole conflict, colleague relations, chairperson relations) and four factor ratings (WORK, EVADM, FINAN, TEACH).

Descriptive Analyses

Predictors. Table 3 presents the means and standard deviations computed for VA and comparative model predictors.

Table 3: Descriptive statistics for four sets of predictors

PREDICTORS	MODEL							
	VA		Need		Satis.		Discrep.	
	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd
Factors:								
WORK	12.2	5.98	3.56	.54	3.56	.79	.85	.59
EVADM	7.06	8.40	2.98	1.02	3.02	1.12	1.28	.92
FINAN	7.43	6.75	3.08	.61	3.04	.93	1.25	.79
TEACH	12.93	6.24	3.70	.81	3.73	.89	.63	.63
Items:								
Clarity	10.58	7.97	3.34	1.12	3.76	1.05	.67	.84
Load	13.95	6.55	4.07	.91	3.37	1.03	.79	.83
Conditions	9.25	9.40	3.32	1.15	3.34	1.23	1.01	1.10
Value-Univ. comm.	9.13	8.60	3.26	1.04	3.12	1.17	1.08	.95
Value-by public	10.40	7.60	3.40	1.01	3.43	1.06	.76	.83
Role conflict	5.73	4.20	3.07	1.10	2.85	1.11	1.29	1.15
Collegial relation	10.42	8.28	3.38	1.08	3.36	1.18	.79	.89
Chair relations	10.42	9.00	3.32	1.30	3.56	1.26	.66	.93

Possible values: VA, 1-25; Need and Satisfaction, 1-5; & Discrepancy, 0-4.

The range of ratings for each model was: VA, 5.73-13.95; Need, 2.98-4.07; Satisfaction, 2.85-3.76; and Discrepancy, .63-1.29.

Interpreting the mean ratings across the four sets,

university faculty appeared to have fairly high levels of work load, autonomy, research creativity, and time to teach and mentor, with teaching time least discrepant. Although interrole conflict was low, faculty desired even less conflict than that under which they currently work. Respondents rated financial benefits and participation in evaluative and administrative decision-making at moderate levels, but they desired more participation than they presently have. Faculty sought more peer recognition and esteem from their colleagues. The importance of the large discrepancy for working conditions was mediated by the item's low value and moderate satisfaction levels.

The dependent measure. The global job satisfaction (GJS) measure was adapted from an eight item Likert format survey psychometrically established by Price and Mueller (1981). The dependent measure was computed as an average of the eight item responses, coefficient alpha = .89. The mean GJS for the full sample was 4.12, sd = .65, on a scale from 1-5, with 5 = strong agreement with the statement expressing a global affective response. No measure of global job satisfaction for non-respondents was available. Although the non-respondents did not significantly differ from respondents in rank, institution, or gender, the sample dependent measure may have exhibited a positive GJS bias. Non-respondents could have been more dissatisfied as a group and less motivated to comment/return the surveys, however, the open-ended item responses did not indicate

that such bias was likely.

Limitations

A single type of higher educational institution, the research multiversity, and a single academic discipline, education, were used to reduce the possible confounding effects of work role variations and diverse discipline orientations. The predictors selected for study were limited to the agents and events of the faculty work experience. No individual personality constructs were considered.

Findings

Three of the four models accounted for approximately one third of the variability in GJS: VA, 29%; sum-of-facets satisfaction, 37%; need fulfillment, 33%; and discrepancy, 19%. The three models' similar R may be caused by the high intercorrelations between the same predictors in different models. The correlations between VA and satisfaction predictors exceeded .70 for nine of 12 predictor pairs; for VA and need fulfillment, 11 of 12 pairs; and for need and satisfaction, eight of 12 pairs.

The pattern of significant predictors across the four models was fairly consistent. Perceived value of work by the university community was in all four, and WORK activities obtained the largest beta weight for three models. Interrole conflict

appeared in three models, and two models contained role clarity, administration participation, and finances. See Table 4.

Table 4: Significant predictors of GJS by model

VA			Need			Satisfaction			Discrepancy		
Var	b	r	Var	b	r	Var	b	r	Var	b	r
WORK	.25	.45	WORK	.21	.46	WORK	.20	.52	VALCOM	-.18	-.28
EVADM	.17	.36	VALCOM	.21	.46	Clarity	.15	.47	EVADM	-.15	-.28
VALCOM	.14	.41	Confl	-.22	-.20	VALCOM	.13	.42	Confl	-.15	-.21
FINAN	.13	.32				Confl	.11	.30	FINAN	-.15	-.24
									Clarity	-.14	-.23

The most important predictor variables for the VA model were the WORK activities factor, EVADM factor, perceived value by the university community, and the FINANces factor. See Table 5.

Table 5: GJS predicted by VA model

Variables	Zero order r	STD. regression coefficients
WORK	.45	.25 **
EVADM	.36	.17 *
valucommunity	.41	.14 *
FINAN	.32	.13 *
clarity	.26	.08
valupublic	.15	.05
conflict	-.06	-.04
workload	.31	.04
TEACH	.28	.03
chair relations	.26	-.03
work conditions	.25	-.01
colleague relation	.20	-.01

R^2 = .32 adj. R^2 = .29 F 12,239 = 9.222 *** (N=251)
*** p = .0001 ** p = .01 * p = .05

Gender effects were tested using multiple regression analyses of the partitioned sub-samples. Table 6 presents the

standardized regression coefficients for selected models by gender.

Table 6: Comparison of GJS prediction by model and gender

	VA		Need		Satisfaction	
Gender	M	F	M	F	M	F
Variables						
WORK	.24**	.23	.19**	.22	.17*	.41**
EVADM	.16**	.04	.09	-.21	.15 a	-.15
FINAN	.16*	.00	.10	-.06	-.00	.21*
TEACH	.08	.21	.02	.08	.00	.24*
clarity	.07	.15	.12 a	.12	.14	.09
workload	.08	-.13	.05	.06	.11	-.11
work condition	-.12	.28*	.01	.04	-.04	.07
valucommunity	-.08	.04	.14 a	.62***	.10	.21
valupublic	-.03	-.10	.01	.06	.06	-.12
conflict	.02	-.17	-.17**	-.27**	.14*	.02
colleagues	.11	.41**	-.02	-.04	.10	.24*
chairperson	.05	-.03	.10	.04	-.05	-.13
R^2	.29	.54	.32	.61	.36	.63
adj. R^2	.25	.42	.27	.53	.32	.54

all models significant p = .0001

*** p = .0001 ** p = .001 * p = .05 a p = .07

Significant female VAs were colleague relations and work conditions, but significant male VAs were WORK itself, participating in evaluative and administrative decision-making, and finances. The need predictors were similar for both genders, but the female satisfaction model depicted a stronger role for colleague relations, finances and teaching activities than did the male satisfaction model. Work activities were significant predictors for male GJS in both the VA and need models, but it appeared only in the female satisfaction model.

Analyses of variance by demographic categories were performed, but there were no significant mean GJS differences by gender, tenure status, rank, gender X rank, or gender X tenure status. Mean trends were toward greater GJS for males, non-tenured, and assistant rank respondents, and toward lower GJS for associate rank and tenured females.

The one way ANOVA of GJS by eight levels of institution obtained only one significant mean difference, between Institution D (M= 4.30, sd = .51) and Institution G (M= 3.62, sd = .98), F 7,244 = 2.49, p= .01 . Comparing the means of survey items for the two institutions, Institution G respondents rated current levels lower for all variables except perceived value of work by public and interrole conflict. Mean satisfaction ratings were lower on all but one item, value of work by public. The less satisfied G faculty valued low levels of interrole conflict and low administrative participation, but they perceived they had more of both than did D faculty. Finances, rated equally at both, and higher perceptions of public value apparently did not moderate G's lower faculty satisfactions.

Discussion

Based on the statistical and qualitative data findings, a significant proportion of global affective responses to faculty work was predicted by the autonomous and creative nature of academic work itself, the perceptions of participation in

administrative decision-making and the fairness of administrative evaluation, perceived esteem by peers in the university community, and financial compensations. Work role clarity and interrole conflict appeared to be important considerations in faculty job satisfaction. The relative magnitude of beta weights and significance pattern of the findings is in keeping with the scholarly orientation pattern of faculty professionalism reported in the literature. The faculty work-related variables appeared to be surprisingly consistent with those of blue-collar workers, in that both sets of workers value most the actual performance of work activities. White-collar workers have generally preferred status and other extrinsic rewards of their employment rather than the work tasks per se in assessing job satisfaction (Katzell & Yankelovich, 1975).

The institution-related finances factor was related to faculty job satisfaction. Although few academics chose their career field for its monetary rewards, respondents' job satisfaction was affected by the appraisal of financial job elements. A significant negative discrepancy was obtained, possibly reflecting the recent reduction in relative buying power of faculty salaries.

The small number (4-5) of the 12 model predictors that were shown to be significantly related to faculty global job satisfaction was unexpected. Previous empirical findings obtained significant job satisfaction correlations with 20-25

different variables. The multivariate analytical approach helped to clarify the relationship among predictors and to explain why the adjustment of a single variable or non-valued variables has not resulted in the desired organizational outcome.

The VA model performed fairly well in predicting a sizeable proportion of faculty GJS, and, of the four models tested, it was the least affected by possible multicollinearity. No intercorrelations of VA predictors exceeded .39; the other three sets of predictors exhibited some intercorrelations near and exceeding .50. Although the satisfaction and need fulfillment models accounted for 3-8% more GJS variance, the VA model more accurately reflected the open-ended item responses. "Autonomy-creativity of work itself" was cited 246 times as a major satisfier, and "peer recognition" was cited 40 times. The most frequently cited dissatisfier was "participation in administration and unfair evaluation" (141 times); the second most frequent dissatisfier was "finances" (51 times).

There remains 60-70% of GJS variance unexplained. The remaining variability could be attributable to work factors omitted from the survey, but the interviews, pilot test, and review of literature make this improbable. Individual differences in general life satisfaction and/or non-work satisfaction spillover could provide an alternative explanation (Rice et al., 1985; Scarpello & Campbell, 1983). Measurement error, from low reliability of the discrepancy variables, may

have limited the R^2 .

Criterion restriction of range might have been a problem. Anderson (1978) presented a beta weight evaluation method with which to verify or discount range restriction effects. This method was employed, and findings of relative strength of the predictors did not indicate criterion range restriction. The most likely explanation for the unaccounted for variance is the omission of non-work satisfaction variables and/or measurement errors.

Contrary to earlier findings, there were no main effect or interaction differences in job satisfaction by tenure, gender, or rank. It is possible that the character of professional engagement of high ability faculty in selective research multiversities minimized these covariate effects.

Gender differences in the predictive models were noted. Male job satisfaction was more related to work- and institution-related items than was female job satisfaction. Female faculty highly and uniquely valued colleagial relationships in appraising GJS. Interpretations of the female regression models, however, remain unclear. The average standard errors was approximately .15, compared with .Ø4 for the male models average standard errors. The magnitude of the R^2 s and beta weights may have been manipulated by the minimum cases-to-predictors ratio for the female subsample.

Research productivity was reported by male and female faculty as the single most important criterion for promotion, yet faculty are expected to make substantial contributions through teaching and service. Many respondents commented that high level teaching, their more valued activity, required a significant investment of time, an investment not encouraged by their institutions. This observation was particularly salient for females. Female respondents were two times more likely to make negative comments about the lower institutional priority for teaching and service compared to research and the peer strain with male colleagues created by this inequity.

Recommendations

Satisfied education faculty members at research multiversities determine their own creative work spaces, have optimal time and opportunity for peer interaction, and engage in administrative decision-making and evaluation that is perceived as equitable, mutually advantageous and productive. For males, such activities are financially rewarding, and for females, such activities are socially rewarding. Because administrators are charged with the general task of facilitating the academic work of the research university, the following recommendations are suggested:

1. Faculty should have control over those policies and decisions most central to teaching and service activities.
2. Work and social opportunities for sharing information about faculty achievements should be given high priority. Administrators should plan seminars, colloquia, workshops,

and social gatherings, organized to mix disciplines and divisions. Such events are particularly important for female faculty.

3. Reduce the numbers of committees. Committee work should be appropriately infrequent, purposeful, and mutually beneficial.
4. Peer evaluation should be equitable, based on clear criteria, and congruent with faculty professionalism.
5. Salaries and fringe benefits should keep pace with inflation, and whenever possible, be comparable with non-academic employment.
6. Modify work loads in research multiversities. Create sensible work expectations. Don't expect each individual to do everything.
7. Conceptualize faculty job satisfaction as a complex affective response, somewhat different from that of other professional employees. Simple interventions produce negligible institutional outcomes.

Faculty who feel more satisfied and valued would probably be more effective teachers, researchers, and participative decision-makers. Satisfied faculty were two times more likely to use non-adversarial methods to redress grievances and to resolve conflict than were dissatisfied faculty (Finkelstein, 1984). The increased accuracy of communication and consensus could in turn enhance institutional vitality and reduce the fragmentation that characterizes universities.

Future research efforts should focus on improved measures of the constructs in this study, especially increasing reliability of the discrepancy component of the value appraisal. Development of a causal model, including non-work and/or individual variables, would be the next major step toward a more comprehensive understanding of faculty job satisfaction. The VA model, adjusted for possible measurement error, might be a useful

part of this model. Generalizability of findings across institutional type and discipline needs to be empirically established. The effects on job satisfaction of interventions derived from the significant predictors and use of value weights will require careful evaluation in varied higher educational settings.

References

Anderson, N. (1982). Methods of Integration Information Theory. New York: Academic Press.

Anderson, R. (1985). Does money matter? Journal of Higher Education, 56 (6), 623-639.

Araghi, M. (1981). The relationship between university faculty job satisfaction, role conflict, task clarity, and productivity. Dissertation Abstracts International, 42 (4), 15Ø2A.

Baldridge, J., Curtis, D., Ecker, G. & Riley, G. (1978). Policy Making and Effective Leadership. San Francisco: Jossey-Bass.

Bennett, C. & Griffitt, W. (1976). Survey of Faculty Opinion at Kansas State University, (Research Report #35). Manhattan, KS: Office of Educational Research.

Bess, J. (1973). Patterns of satisfaction of organizational prerequisites and personal needs in university academic departments. Sociology of Education, 46 (1), 3-16.

Bess, J. (1981, March). Intrinsic satisfactions from academic versus other professional work: A comapartive analysis. Paper presented at the annual meeting of the Association for the Study of Higher Education., Washington, DC.

Blackburn, R. & Navighurst, R. (1979, March). Career patterns of distinguished male social scientists. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Cares, R. & Blackburn, R. (1978). Faculty self-actualization: Factors affecting career success. Research in Higher Education, 9 (2), 123-136.

Carnegie Council on Policy Studies in Higher Education (1976). A Classification of Institutions of Higher Education. Revised edition. Berkeley: Carnegie Council.

Clark, B. (1983). The Higher Education System. Berkeley, CA: The University of California Press.

Cook, J., Hepworth, S., Wall, T. & Warr, P. (1981). The Experience of Work: A Compendium and Review of 249 Measures and their Uses. New York: Academic Press.

Corcoran, M. & Clark, S. (1983, April). Development of guidelines for policy-relevant studies of faculty vitality through an institutional case study. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 292-334.

Diener, T. (1984, April). College faculty and job satisfaction. Paper presented at the annual meting of the American Educational Research Association, Montreal, Canada.

Dittrich, J. & Carrell, M. (1979). Organizational equity perceptions, employee job satisfaction, departmental absence and turnover rates. Organizational Behavior & Human Decision Processes, 24, 29-40.

Finkelstein, M. (1984). The American Academic Profession. Columbus, Ohio: Ohio State University Press.

Getzels, J., Lipham, J. & Campbell, R. (1968). Educational Administration as a Social Process. New York: Harper & Row.

Gonnett, K. (1983). An investigation of eleven job satisfaction variables as they pertain to full-time community college faculty. Dissertation Abstracts International, 44 (8), 2374-2375A.

Hambleton, R. (1980). Test score validity and standard setting methods. In R. Berk (ed.) Criterion-Referenced Measurement: The State of the Art. Baltimore: Johns Hopkins Press.

Hatch, O. (1981). A free market: Limiting government's role. Change, 13 (3), 28-29.

Hyer, P. (1985). Women faculty at doctoral-granting universities: A ten year report. Journal of Equity and Leadership, 5 (3), 234-249.

Katzell, R. & Yankelovich, O. (1975). Work, Productivity, & Job Satisfaction: An Evaluation of Policy-Related Research. New York: Harcourt Brace.

Kerr, C. (1963). The Uses of the University. New York: Harper & Row.

Krueger, A. (1979). The changing economic status of the profession and the impact of inflation. Academe, 65 (8), 487-492.

Locke, E. (1976). The nature and causes of job satisfaction. In M. Dunnett (ed.) Handbook of Industrial and Organizational Psychology, Chicago: Rand-McNally.

Locke, E. (1984). Job satisfaction. In M. Gruneborg & T. Wall (eds.), Social Psychology and Organizational Behavior, New York: Wiley and Sons.

Moxley, L. (1977). Job satisfaction of faculty teaching higher education: An examination of Herzberg's dual-factor theory and Porter's need satisfaction research. Resources in Education, 12, 92.

Nunnally, J. (1978). Psychometric Theory. 2nd. edition. New York: McGraw-Hill Publishers.

Pearson, D. & Seiler, R. (1983). Environmental satisfiers in academe. Higher Education, 12, 35-47.

Price, J. (1972). Handbook of Organizational Measurement. Lexington, MA: D. C. Heath.

Price, J. & Mueller, C. (1981). Professional Turnover: The Case of Nurses. New York: S. P. Medical and Scientific Books.

Rand, A. (1964). The objectivist ethics. In A. Rand (ed.), The Virtue of Selfishness. New York: Signet.

Rice, R., McFarlin, D., Hunt, R. & Near, J. (1985). Organizational work and the perceived quality of life: Toward a conceptual model. Academy of Management Review, 26, 177-188.

Salancik, G. & Pfeffer, J. (1977). An examination of need satisfaction models of job attitudes. Administrative Science Quarterly, 22, 427-456.

Scarpello, V. & Campbell, J. (1985). Job satisfaction: Are all the parts there? Personnel Psychology, 36 (3), 577-600.

Skaggs, G. & Lissitz, P. (1981). Discriminant and convergent validation of behavioral tendencies to determining job satisfaction. University of Maryland: Department of Measurement, Statistics, and Evaluation.

Sorcinelli, M. & Near, J. (1986, April). How faculty relate work and life away from work: A discriminant analysis. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Tabachnick, B. & Fidell, L. (1983). Using Multivariate Statistics. New York: Harper and Row.

Williams, J. & Johansen, E. (1985). Career disruptions in higher education. Journal of Higher Education, 56 (2), 144-160.

Willie, R. & Stechlein, J. (1982). A three decade comparison of college faculty characteristics, satisfaction, activities, and attitudes. Research in Higher Education, 16 (1), 81-94.